



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

September 21, 2023

Ms. Paula Gerfen
Senior Vice President, Generation
and Chief Nuclear Officer
Pacific Gas and Electric Company
Diablo Canyon Power Plant
P.O. Box 56, Mail Code 104/6
Avila Beach, CA 93424

SUBJECT: DIABLO CANYON NUCLEAR POWER PLANT, UNITS 1 AND 2 –
REGULATORY AUDIT PLAN IN SUPPORT OF LICENSE AMENDMENT
REQUEST TO REVISE TECHNICAL SPECIFICATIONS TO ADOPT
RISK-INFORMED COMPLETION TIMES (EPID L-2023-LLA-0100)

Dear Ms. Gerfen:

By letter dated July 13, 2023 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML23194A228), Pacific Gas and Electric Company (the licensee) submitted a license amendment request (LAR) for Diablo Canyon Nuclear Power Plant, Units 1 and 2, to adopt Technical Specifications Task Force (TSTF) Traveler 505 (TSTF-505), Revision 2, "Provide Risk-informed Extended Completion Times, RITSTF [Risk-Informed TSTF] Initiative 4b" to permit the use of risk-informed technical specification completion times for certain actions required when limiting conditions for operation are not met.

The U.S. Nuclear Regulatory Commission (NRC) staff will conduct a virtual regulatory audit to support its review of the request. A regulatory audit is a planned activity that includes the examination and evaluation of information that is primarily non-docketed. The audit will be conducted to increase the NRC staff's understanding of the LAR and identify information that may require docketing to support the NRC staff's regulatory findings.

In accordance with the enclosed audit plan and requests, the audit team will review documentation and calculations that support the LAR. For efficiency, the team requests the licensee to establish a secure, online portal for remote access to this material. The team will also interview the licensee's subject matter experts using video- and teleconferencing. If necessary, face-to-face interviews may be scheduled at the licensee's facilities or a mutually convenient location.

P. Gerfen

- 2 -

If you have any questions, please contact me by telephone at 301-415-3168 or by email to Samson.Lee@nrc.gov.

Sincerely,

/RA/

Samson S. Lee, Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-275 and 50-323

Enclosure:
Audit Plan

cc: Listserv

REGULATORY AUDIT PLAN
IN SUPPORT OF LICENSE AMENDMENT REQUEST TO REVISE TECHNICAL
SPECIFICATIONS TO ADOPT RISK-INFORMED COMPLETION TIMES
PACIFIC GAS AND ELECTRIC COMPANY
DIABLO CANYON POWER PLANT, UNITS 1 AND 2
DOCKET NOS. 50-275 AND 50-323

1.0 BACKGROUND

By letter dated July 13, 2023 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML23194A228), Pacific Gas and Electric Company (the licensee) submitted a license amendment request (LAR) for Diablo Canyon Nuclear Power Plant, Units 1 and 2 (Diablo Canyon). The licensee's proposed amendment would modify the Diablo Canyon technical specifications (TSs) to permit the use of risk-informed completion times (RICTs) in accordance with TSs Task Force (TSTF) Traveler 505 (TSTF-505), Revision 2, "Provide Risk-Informed Extended Completion Times, RITSTF [Risk-Informed TSTF] Initiative 4b," dated July 2, 2018 (ML18183A493). The licensee will be applying industry guidance prepared by the Nuclear Energy Institute (NEI); specifically, NEI 06-09, Revision 0-A, "Risk-Informed Technical Specifications Initiative 4b, Risk-Managed Technical Specifications (RMTS) Guidelines," dated November 2006 (ML12286A322).

The U.S. Nuclear Regulatory Commission (NRC) staff in the Office of Nuclear Reactor Regulation (NRR) has initiated its review of the LAR in accordance with NRR Office Instruction LIC-101, "License Amendment Review Procedures" Revision 6, dated July 31, 2020 (ML19248C539).

2.0 REGULATORY AUDIT BASIS

A regulatory audit is a planned activity to examine and evaluate information that provides the technical basis for actions related to a license or regulation. An audit allows the NRC staff to gain insights to the licensee's processes and procedures. In the case of a LAR, the NRC staff can clarify its understanding of the request, verify the information submitted, and identify additional information that the staff needs to make a licensing or regulatory decision. Information that the NRC staff relies upon to make a safety determination or decision must be submitted on the docket.

The NRC staff will perform this audit to support its evaluation of whether the licensee's requests can be approved per Title 10 of the *Code of Federal Regulations* Section 50.90, "Application for amendment of license, construction permit, or early site permit." It will be conducted in accordance with NRR LIC-111, "Regulatory Audits," dated October 31, 2019 (ML19226A274). Exceptions, if any, are described in this audit plan. The NRC staff's review will be informed by NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR [Light-Water Reactor] Edition," Section 19.2, "Review of Risk Information Used to Support Permanent Plant-Specific Changes to the Licensing Basis," dated June 2007

(ML071700658). The audit will help the NRC staff to understand the licensee's proposed programs for implementing RICTs and applying them to certain TSs.

3.0 REGULATORY AUDIT SCOPE

The audit team will view the documentation and calculations that provide the technical support for the LAR. The scope of the NRC staff's audit will focus on the following subjects:

- Understand how the licensee's proposed program conforms to NRC-endorsed guidance in NEI 06-09, Revision 0-A.
- Confirm the NRC staff's understanding of the LAR and gain a better understanding of the detailed calculations, analyses, and bases on which it is based, including the probabilistic risk assessment (PRA).
- Gain a better understanding of plant design features and their implications for the LAR.
- Identify any information needed for the NRC staff's evaluation of the technical acceptability of the PRA on which RICT calculations are based.
- Identify any information needed to enable the NRC staff's evaluation of whether the proposed changes challenge design-basis functions or adversely affect the capability or capacity of plant equipment to perform design-basis functions.

Information needed to support a safety finding or licensing decision may already be docketed, which can be determined during the audit. Otherwise, it must be submitted under oath or affirmation. The licensee may supplement the LAR with this information. Alternatively, the licensee may respond to a formal request for additional information (RAI). If needed, RAIs will be developed and transmitted separately in accordance with NRR Office Instruction LIC-115, Revision 1, "Processing Requests for Additional Information," dated August 5, 2021 (ML21141A238).

The NRC staff will audit the PRA methods that the licensee would use to revise completion times for affected TSs. This will include the licensee's assessment of internal events (including internal flooding) and fire as well as the licensee's treatment of uncertainties and evaluation of defense-in-depth. The NRC staff will also review the quantification of risk from significant external events, whether PRA or bounding methods are used. In addition, the audit team will discuss these topics with the licensee's subject matter experts.

4.0 INFORMATION AND OTHER MATERIAL NECESSARY FOR THE REGULATORY AUDIT

The NRC staff will request information and interviews throughout the audit period. The NRC staff will use an "audit items list" to identify the information to be audited (e.g., methodology, process information, and calculations) and the subjects of requested interviews and meetings.

The NRC staff requests that the licensee have the information referenced in the attachment of this audit plan available and accessible for the NRC staff's review via a web portal within 2 weeks of the date of this audit plan. As additional or supplemental information is requested, it should be available and accessible within 1 week of the date of the NRC staff's notification to

the licensee of the new requests. The NRC staff requests that the licensee notify the review team when an audit item is added to its portal by sending an email to the NRC licensing project manager.

The NRC staff acknowledges and will observe appropriate handling and protection of proprietary information made available for the audit. The NRC staff will not remove non-docketed information from the audit site or web portal.

5.0 AUDIT TEAM

The following table identifies the NRC audit team members and their respective organization:

Name	Email	Organization
Steven Alferink	Steven.Alferink@nrc.gov	PRA Licensing Branch C
Mihaela Biro	Mihaela.Biro@nrc.gov	PRA Licensing Branch A
Michael Breach	Michael.Breach@nrc.gov	Mechanical Engineering & Inservice Testing Branch
Norbert Carte	Norbert.Carte@nrc.gov	Instrumentation and Controls Branch
Robert Elliott	Robert.Elliott@nrc.gov	Technical Specifications Branch
Fred Forsaty	Fred.Forsaty@nrc.gov	Nuclear Systems Performance Branch
Hari Kodali	Hari.Kodali@nrc.gov	Electrical Engineering Branch
Malcolm Patterson	Malcolm.Patterson@nrc.gov	PRA Licensing Branch A
Derek Scully	Derek.Scully@nrc.gov	Containment and Plant Systems Branch
Henry Wagage	Henry.Wagage@nrc.gov	Containment and Plant Systems Branch
Zeechung Wang	Zeechung.Wang@nrc.gov	Performance and Reliability Branch
Khadijah West	Khadijah.West@nrc.gov	Technical Specifications Branch
Steve Wyman	Stephen.Wyman@nrc.gov	Electrical Engineering Branch

6.0 LOGISTICS

The audit will be conducted remotely via a secure, online portal, established by the licensee to present supporting documentation and calculations. In addition to the review of documents made available on the portal, the NRC staff will interview the licensee's subject matter experts, virtually (by telephone and videoconference) and, if necessary, in person. The audit will begin within 2 weeks of the date of this audit plan and last through January 2024. The NRC staff will establish a schedule of audit meetings as appropriate (e.g., a single, multi-day audit meeting with supplemental audit meetings as needed) on mutually agreeable dates and times.

At the meetings, the licensee is to discuss information needs and questions arising from the NRC's review of the application and other material reviewed during the audit. The NRC project

manager will inform the licensee of audit meeting dates when they are established, including the date of an audit kick-off meeting.

7.0 SPECIAL REQUESTS

The following conditions associated with the online portal should be maintained while the NRC staff and contractors on the audit team have access to the online portal:

- The online portal will be password-protected, and separate passwords will be assigned to each member of the audit team.
- The online portal will prevent the NRC participants from printing, saving, downloading, or collecting any information directly from the online portal.
- Conditions of use of the online portal will be displayed on the login screen and will require acknowledgment by each user.

The licensee should provide username and password information directly to the NRC staff on the audit team listed above. The NRC project manager will provide the licensee the names and contact information of the NRC staff and any contractors who are added to the audit team. All other communications should be coordinated with the NRC project manager. The NRC project manager will inform the licensee via routine communications when the NRC staff no longer needs access to the portal.

No data accessed by the audit team members will be retained by the NRC following the conclusion of the audit.

8.0 DELIVERABLES

The NRC staff will develop any RAIs, as needed, in accordance with NRR LIC-115 and issue such RAIs independent of audit-related correspondence. At the end of the audit, the NRC staff will conduct an exit meeting to inform the licensee of the outcome of the audit. The NRC staff will issue an audit summary report within 90 days of the audit exit.

Attachment:
Audit Items List

ITEM	AUDIT REQUESTS
1	Reports cited in enclosure 2 of the license amendment request (LAR) dated July 13, 2023 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML23194A228) to adopt Technical Specifications Task Force (TSTF) Traveler 505 (TSTF-505), Revision 2, "Provide Risk-Informed Extended Completion Time, RITSTF [Risk-Informed TSTF] Initiative 4b," from full-scope and focused-scope peer reviews, self and gap assessments (including findings, observations, and dispositions), and closure reviews of facts and observations (F&Os).
2	For the probabilistic risk assessments (PRAs) identified under Item No.1 above, plant-specific documentation (e.g., uncertainty notebooks) related to: <ul style="list-style-type: none"> a. The review of the PRA model assumptions and sources of uncertainty (generic and plant-specific assumptions/uncertainties) for the TSTF-505 LAR. b. Identification of key assumptions and sources of uncertainty for the TSTF-505 LAR. c. Parametric uncertainty and state-of-knowledge correlation evaluation for the TSTF-505 LAR.
3	If modeled, PRA notebooks associated with the modeling of open phase condition (OPC) in electrical switchyards and the open phase isolation system (OPIS).
4	Documentation of how shared or cross-tied systems are modeled in the PRA.
5	Fire PRA notebooks containing the results of the fire PRA, including risk importance measures.
6	<p>"Investigation of Seismic Probabilistic Risk Assessment (SPRA) Quantification to Simplify PRA Models Used to Assess Risk-Informed Completion Times," Electric Power Research Institute (EPRI) Configuration Risk Management Forum Research Task, EPRI, Palo Alto, CA: 2021, 3002020744.</p> <p>"High Wind Loss of Offsite Power Durations and Recovery," EPRI, Palo Alto, CA: 2020, 3002018232.</p>
7	Documentation supporting the example risk-informed completion times (RICT) calculations presented in LAR Enclosure 1, Table E1-2.
8	Documentation supporting the development of the real-time risk tool and benchmarking it against the PRA.
9	PRA configuration control and update procedures, including when the PRA is updated (i.e., unscheduled and scheduled PRA updates).
10	If available, final RICT program procedures (e.g., for risk management actions, PRA functionality determination, and recording limiting conditions for operation). (The licensee may choose (optional) to provide draft RICT program procedures if final procedures are not available.)

ITEM	AUDIT REQUESTS
11	Other documentation that the licensee determines to be responsive to the NRC staff's information requests.
12	Unit 1, Final Safety Analysis Report (FSAR), Single line diagrams – <ul style="list-style-type: none">• Figure 8-3 Auxiliary Power Distribution System,• Figure 8 –16 (3 pages) Main Station Buses,• Figure 8-17 (3 pages) Station Main Buses,• Figure 8-34 Single Line Diagram 125 V DC (Volt Direct Current) and 240/120 V AC (Volt Alternating Current) Auxiliary Power System. These drawings are related to FSAR, Chapter 8. These drawings or equivalent training drawings are necessary for review.
13	Seismic PRA notebooks containing the results of the seismic PRA, including risk importance measures.
14	Documentation supporting the calculation of core damage frequency for the aircraft impact, extreme wind or tornado, hurricane, and tsunami external hazards presented in LAR enclosure 4, table E4-1.

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 DATED SEPTEMBER 21, 2023

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RidsNrrDexEmib Resource	

ADAMS Accession No. ML23264A001 concurrence via email

OFFICE	NRR/DORL/LPL4/PM	NRR/DORL/LPL4/LA*	NRR/DRA/APLA/BC *
NAME	SLee	PBlechman	RPascarelli
DATE	9/21/2023	9/21/2023	9/21/2023
OFFICE	NRR/DRA/APLC/BC*	NRR/DORL/LPL4/BC*	NRR/DORL/LPL4/PM*
NAME	SVasavada (ANeuhausen for)	JDixon-Herrity	SLee
DATE	9/21/2023	9/21/2023	9/21/2023

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